

REMARKS

There are now pending in this application claims 15, 16, 19, and 20, each of which is independent. Claims 13, 14, 17, and 18 have been cancelled without prejudice or waiver of their subject matter. Each of the pending claims has been amended.

In view of the above amendments and the following remarks, favorable reconsideration and allowance of the above application is respectfully sought.

The drawings were objected to on grounds that they did not include a reference sign of FG mentioned on page 13, line 3, of the specification and that reference numeral "83" in Figure 6 should be labeled as reference numeral --81--. With respect to the latter objection, Applicant submits herewith a replacement sheet for Figure 6 relabeling reference numeral "83" which appears reference numeral "87" as reference numeral --81--.

With regard to the term "FG" appearing on page 13 of the specification, Applicant respectfully traverses the rejection and note that the term "FG" is in fact an acronym for the phrase "frequency generator". As such, it is not a reference sign and Applicant therefore respectfully requests withdrawal of the objection to the drawings based thereon.

Applicant has amended the specification to address the informalities cited therein.

The invention as recited in claim 15 is directed to a sheet conveying apparatus which comprises a sheet conveyor for conveying a sheet from a sheet tray to a sheet path, a first detector for detecting that the sheet is set on the sheet tray and a plurality of second detectors, provided in the sheet path, for detecting a presence or absence of a sheet, each of the plurality of

second detectors including a light emitting element and a light deceiving element. The controller controls the plurality of second detectors so as not to emit light from the light emitting elements of the plurality of second detectors before the first detector detects that the sheet is set on the sheet tray and controls the plurality of second detectors to emit light from the light emitting elements of the second detectors in response to a detection by the first detector that the sheet is set on the sheet tray. Claim 15 has been amended to recite that the controller controls the plurality of second detectors to emit light simultaneously.

Independent claims 16, 19, and 20 correspond to independent claim 15 in their salient features and have been amended in the same manner. Claims 15 and 20 are directed more specifically to an original conveying apparatus, with claim 20 reciting that the plurality of second detectors include an LED. Claim 19, like claim 15, is directed to a sheet conveying apparatus, but claim 19, like claim 20, also recites that the plurality of second detectors include an LED.

Claims 15 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kikuchi (U.S. Patent No. 4,310,153). Claims 16 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hattori et al. (U.S. Patent No. 6,091,927) in view of Kikuchi. In view of the above amendments and for reasons which follow, the rejections are respectfully traversed.

Kikuchi features a plurality of sensors which are spaced along sheet feeding path in order to sense the presence of a copy sheet. However in Kikuchi the sensors are driven based on the feed amount of the motor so as to emit light sequentially as the paper sheet proceeds down the sheet feed path. As such, only one sensor will emit light at any given time.

To more clearly illustrate the distinguishing features of Applicant's invention, each of the independent claims has been amended to recite that the controller controls the plurality of second detectors to emit light simultaneously. Kikuchi, in contrast, uses a plurality of sensors which cannot emit light simultaneously.

Since in Kikuchi only one sensor emits light at any given time, only one sheet conveyed through the sheet feed path can be detected. As a result, since plural sheets conveyed through the path cannot be detected, only one sheet will be fed into the sheet feed path at any given time. Therefore, Kikuchi does not achieve the high productivity of Applicant's invention.

The secondary reference to Hattori et al. was cited, in Applicant's understanding, to illustrate the original conveying apparatus. However, as noted, Hattori et al. does not even disclose a plurality of second detectors, and certainly does not disclose a plurality of second detectors which are controlled so as to emit light simultaneously. Thus, even in combination with Kikuchi, Hattori et al. does not teach or suggest the invention as now recited in each of the independent claims.

For the foregoing reasons, Applicant respectfully submits that each of the independent claims in the above application is patentable over the art of record.

All outstanding matters in the above application having been addressed, this application is now in condition for allowance. Favorable reconsideration and early passage to issue are respectfully sought.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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